AMENDMENTS TO THE SPECIFICATION:

Before the first line insert:

This application claims priority to Japanese Patent Application Number JP2002-223846, filed July 31, 2002 which is incorporated herein by reference.

Please replace the first paragraph on page 1 of the Specification under TECHNICAL FIELD with the following amended paragraph:

The present invention relates to a ~~device-incorporated substrate and a method of manufacturing a device-incorporated substrate, as well as to a printed circuit board and a method of manufacturing a printed circuit board~~ method for manufacturing a device-incorporated substrate in which the formation of a conductor pattern is performed through a transfer method using a transfer sheet. More specifically, the present invention relates to ~~a device-incorporated substrate and a method of manufacturing a device-incorporated substrate, as well as to a printed circuit board and a method of manufacturing a printed circuit board~~ a method for manufacturing a device-incorporated substrate that are superior in terms of dimensional stability and through which a fine-pitch conductor pattern can be formed.

Please replace the first paragraph on page 5 of the Specification with the following amended paragraph:

The present invention is made in view of the problems above, and makes it an issue ~~to provide a device-incorporated substrate and a method for manufacturing a device-incorporated substrate, as well as to a printed circuit board and a method of manufacturing a printed circuit board~~ to provide a method for manufacturing a device-incorporated substrate in which the dimensional stability of the conductor pattern is secured to make it possible to form a fine-pitch conductor pattern on an insulating layer with high precision and in which the removal of the transfer sheet can be performed properly.

Please replace the last paragraph on page 5 with the following amended paragraph:

In addition, in the present invention, the removal of the transfer sheet from the insulating layer is done mainly by dissolving and removing the transfer sheet. Thus, even in cases where the insulating layer, which is the transfer target, has strong rigidity, it is possible to ensure a proper transfer operation for the conductor pattern. Especially, the present invention is characterized by that after forming a seal resin between an electric device housed into a void section formed in an insulating layer and a conductor pattern formed on the insulating layer and connected to the electric device, a step of removing a transfer sheet is performed. According to the present invention, the conductor pattern, after the device is connected thereto, is supported by both the transfer sheet and the sealing resin layer, and thus it is secured to form the fine-pitch conductor pattern with high precision.

Please replace the first full paragraph on page 6 with the following amended paragraph:

Here, the transfer sheet may be so configured to include a metal base material, and a dissolvee metal layer that is layered so as to be separable with respect to the metal base material and onto which a conductor pattern is formed. The metal base material accounts for the main portion of the entire thickness of the transfer sheet, and is so made that it has, mainly, mechanical properties or material properties which are essential at the time of handling. When such a metal base material is separated and removed from the dissolvee metal layer, the dissolvee metal layer, which is part of the transfer sheet, remains on the conductor pattern that has been transferred onto the insulating layer. As such, by dissolving and removing this dissolvee metal layer, ~~of~~ the transfer sheet is completely removed from the insulating layer. In such a case, since the time required for the dissolution and removal of the transfer sheet can be shortened, the removal process for the transfer sheet is simplified.

Please delete paragraph 4 on page 7 as follows:

~~Figs. 7(A) through (G) are stepwise sectional views illustrating a method of manufacturing a printed circuit board according to a second embodiment of the present invention, where, in particular, (C) through (F) show a pattern forming step, and (G) shows part of a pattern transfer step;~~

Please delete paragraph 5 on page 7 as follows:

~~Fig. 8A through Fig. 8C are stepwise sectional views illustrating a method of manufacturing a printed circuit board according to the second embodiment of the present invention, and, in particular, show a removal process for a transfer sheet;~~

Please amend paragraph 1 on page 19 as follows:

Further, because the removal of the transfer sheet 61 in the pattern transfer step is ultimately performed by way of dissolving through etching after forming the underfill resin layer 58 between the conductor pattern 55 and the semiconductor chip 56, even in cases where the rigidity of the insulating base material 51 is strong, it is possible to ensure an adequate operation of transferring the conductor pattern 55.

Please delete paragraph 3 under (Second Embodiment) on page 19 as follows:

~~Fig. 7, and Fig. 8A through Fig. 8C show the second embodiment of the present invention. In the present embodiment, a method of manufacturing a printed circuit board related to the present invention will be described.~~

Please delete paragraph 4 under (Second Embodiment) on page 19as follows:

~~First, as shown in Fig. 7(A), an insulating base material 81 is prepared, and an adhesive 84 for forming an adhesive material layer is applied onto the surface thereof (Fig. 7(B)). The same materials as those of the insulating base material 51 and the adhesive 54 described in the first embodiment above are used for the insulating base material 81 and the adhesive 84 of the present embodiment.~~

Please delete paragraph 1 on page 20 under (Second Embodiment) as follows:

~~On the other hand, a conductor pattern 85 to be transferred onto the insulating base material 81 is, as in the first embodiment, formed on a metallic transfer sheet 91 through electroplating as shown in Figs. 7(C) through (F). The transfer sheet 91 has, though not described in detail, a configuration similar to that of the transfer sheet 61 in the first embodiment, and is comprised of a metal base material 92 of copper, a dissolvee metal layer 94 of chromium, and an electrically conductive adhesive resin layer (illustration omitted) that lies between the two.~~

Please delete paragraph 2 on page 20 under (Second Embodiment) as follows:

~~On the dissolvee metal layer 94 of the transfer sheet 91 is formed a plating resist 73A which is obtained by patterning a solder resist 73, and the conductor pattern 85 is comprised of an electroplated layer (copper) 85A that is deposited in areas marked out by the plating resist 73A (Fig. 7(E)). By adhering the transfer sheet 91 on which the conductor pattern 85 is formed onto the insulating base material 81 after the plating resist 73A has been removed, the conductor pattern 85 is transferred onto the adhesive 84 (Fig. 7(G)).~~

Please delete paragraph 3 on page 20 under (Second Embodiment) as follows:

~~Subsequently, as shown in Fig. 8A through Fig. 8C, a step of removing the transfer sheet 91 that has been adhered onto the insulating base material 81 is performed. The removal of the transfer sheet 91, as in the first embodiment, is performed through a step of separating and removing the metal base material 92 from the dissolvee metal layer 94, and a step of dissolving and removing the dissolvee metal layer 94. In particular, for the dissolution and removal of the dissolvee metal layer 94, a hydrochloric etchant, for example, that dissolves the dissolvee metal layer (Cr) 94 but not the conductor pattern (Cu) 85 may be used.~~

Please delete paragraph 1 on page 21 under (Second Embodiment) as follows:

~~A printed circuit board 80 thus produced takes on, as shown in Fig. 8C, a configuration where the conductor pattern 85 formed through electroplating is adhered to the adhesive 84 on the insulating base material 81.~~

Please delete paragraph 2 on page 21 under (Second Embodiment) as follows:

~~According to the present embodiment, because the transfer sheet 91 is made metallic, it is possible to form the fine-pitch conductor pattern 85 with high precision using a pattern plating technique based on electroplating. In addition, since the transfer sheet 91 has predetermined mechanical strength and heat resistance, dimensional change during handling and heating can be virtually eliminated, thereby ensuring the dimensional stability of the conductor pattern 85 that is transferred.~~

Please delete paragraph 3 on page 21 under (Second Embodiment) as follows:

~~Further, because the removal of the transfer sheet 91 in the pattern transfer step is ultimately carried out by dissolution through etching, a proper transfer process of the conductor pattern 85 can be ensured even in cases where the rigidity of the insulating base material 81 is strong.~~

Please delete paragraph 4 on page 21 under (Second Embodiment) as follows:

~~In addition, according to the present embodiment, since the transfer sheet 91 is made to include the metal base material 92 and the dissolvee metal layer 94 that is layered so as to be separable with respect to this metal base material 92, and since the removal of the transfer sheet 91 is comprised of a step of separating and removing the metal base material 92 from the dissolvee metal layer 94, and a step of dissolving and removing the dissolvee metal layer 94, the removal of the transfer sheet 91 becomes easier, and thus, an improvement in productivity can be expected.~~

Please amend paragraph 1 on page 22 as follows:

Fig. 9, and Fig. 10A through Fig. 10D show the third embodiment of the present invention. ~~In the present embodiment, a method of manufacturing a device incorporated substrate related to the present invention will be described.~~ It is to be noted that, in the drawings, the same reference numerals are given to parts that have correspondence in the first embodiment described above, and detailed descriptions thereof will be omitted

Please amend paragraph 1 on page 26 as follows:

Next, Fig. 11A through Fig. 11F show the fourth embodiment of the present invention. ~~In the present embodiment, a method of manufacturing a device incorporated substrate related to the present invention will be described.~~ It is to be noted that, in the drawings, the same reference numerals are given to parts that have correspondence in the first embodiment described above, and detailed descriptions thereof will be omitted.

Please amend paragraph 3 on page 27 as follows:

For example, in the respective embodiments above, the transfer ~~sheets~~ sheet 61 ~~and 91 were~~ is configured, as shown in Fig. 5A, with the electrically conductive adhesive resin layer 63 lying between the metal base ~~materials~~ material 62 ~~and 92~~ and the dissolvee metal ~~layers~~ layer 64 ~~and 94~~ so as to make the metal base ~~materials~~ material 62 ~~and 92~~ and the dissolvee metal ~~layers~~ layer 64 ~~and 94~~ separable from each other, but the configuration of the transfer ~~sheets~~ sheet 61 ~~and 91 are~~ is not limited thereto, and so long as the configuration allows for the separation of the metal base material and the dissolvee metal layer from each other, any configuration may be adopted.

Please amend paragraph 2 on page 28 as follows:

In addition, in each of the embodiment above, examples in which the removal of the transfer ~~sheets~~ sheet 61 ~~and 91 are~~ is comprised of the step of separating and removing the metal base ~~materials~~ material 62 ~~and 92~~, and the step of dissolving and removing the dissolvee metal layer 64 ~~and 94 were~~ was

described, however, instead, the transfer sheet as a whole may be dissolved and removed. In this case, the transfer sheet may be comprised of similar metals, or it may be comprised of a layered body of dissimilar metals. In particular, in the latter case, each metal layer may be selectively etched using different etching solutions.

Please amend the last paragraph beginning on page 28 as follows:

In addition, these combination examples of dissimilar metals can also be applied as combination examples between the metal constituting the dissolvee metal layer (64~~, 94~~) and the metal constituting the conductor pattern (55~~, 85~~).

Please amend paragraph 2 on page 29 as follows:

As described above, according to a method for manufacturing a device-incorporated substrate of the present invention, ~~and a method for manufacturing a printed circuit board of the present invention,~~ since a metallic sheet is used for the transfer sheet, it is possible to form a fine-pitch conductor pattern with high precision, and it is also possible to transfer the formed conductor pattern to an insulating layer while ensuring dimensional stability. In addition, because the removal of the transfer sheet is ultimately carried out by dissolving and removing the transfer sheet after forming the sealing resin layer between the conductor pattern and the electric device, it is possible to ensure a proper transfer process for the conductor pattern.

Please delete paragraph 1 on page 30 as follows:

~~Further, according to a device-incorporated substrate and a printed circuit board of the present invention, since the conductor pattern formed on the insulating layer is comprised of an electroplated layer, the conductor pattern can be made finer in pitch, and packaging density can be improved.~~